

CLAIMS:

1. A distributed routing device comprising:
means for routing subscriber traffic flow between at least two wireless access networks and an IP network, and
means for generating at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.
2. The distributed routing device according to claim 1, wherein at least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network.
3. The distributed routing device according to claim 1, further comprising associating means for associating the subscribers with the at least two wireless access networks.
4. The distributed routing device according to claim 1, further comprising reorganizing means for reorganizing a context from a first logical part of the security instance associated with a first wireless access network of the at least two wireless access networks to a second logical part of the security instance associated with a second wireless access network of the at least two wireless access networks.
5. The distributed routing device according to claim 4, wherein the reorganizing means is configured to reorganize the context from the first logical part to the second logical part in case of a handover of a subscriber from the first wireless access network to the second wireless access network.

6. The distributed routing device according to claim 1, wherein the security function comprises at least one of a Virtual Private Network, routing and firewall function.

7. The distributed routing device according to claim 1, wherein the distributed routing device is located at a provider edge of the IP network.

8. A method for routing subscriber traffic flow in a distributed routing device between at least two wireless access networks and an IP network, the method comprising the steps of:

providing at least one instance for executing a security function on the subscriber traffic flow by logically separating the at least one instance for at least two wireless access networks, so that physically one security instance for subscribers of the at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

9. The method according to claim 8, further comprising the steps of:
associating at least one logical part of the security instance with a context of a respective one of the wireless access networks; and

providing an interface between the at least one logical part and the respective associated wireless access networks.

10. The method according to claim 9, further comprising the step of:
modifying the context in the at least one logical part by the associated wireless access network via the respective interface.

11. The method according to claim 10, further comprising the steps of:
detecting whether the context to be modified comprises a security code;
and

in case the context comprises the security code, inhibiting the step of modifying the context.

12. The method according to claim 8, further comprising the step of: associating the subscribers with the wireless access networks.

13. The method according to claim 8, further comprising the step of: reorganizing a context from a first logical part of the security instance associated with a first wireless access network of the at least two wireless access networks to a second logical part of the security instance associated with a second wireless access network of the at least two wireless access networks.

14. The method according to claim 13, wherein the reorganizing step comprises reorganizing the context from the first logical part to the second logical part in case of a handover of a subscriber from the first wireless access network to the second wireless access network.

15. The method according to claim 14, wherein the reorganizing step comprises reorganizing a handover context pertaining to the subscriber handed over from the first wireless access network to the second wireless access network.

16. A network node in a wireless access network for routing subscriber traffic flow to and from an IP network, the network node comprising:

a connection for connecting a network node to a distributed routing device for routing traffic flow to and from an IP network, wherein the distributed routing device is configured to route subscriber traffic flow between at least two wireless access networks and an IP network, and the distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at

least one of the at least two wireless access networks has a respective security instance, wherein at least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network; and

the network node comprises modifying means for modifying the context in the at least one logical part of the security instance associated with the respective one of the wireless access network via a respectively provided interface.

17. A network system comprising:

at least two wireless access networks and a distributed routing device for routing subscriber traffic flow between the at least two wireless access networks and an IP network, wherein the distributed routing device is configured to route subscriber traffic flow between at least two wireless access networks and an IP network, and the distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.